PyBites Developer Flashcards

The fundamental Python developer skills you need to succeed

“Simple is better than complex”

“If the implementation is hard to explain,
it's a bad idea.”

- *Zen of Python*

Simple ideas

Becoming a developer isn't easy but it doesn't have to be hard either.

Newer developers tend to **overcomplicate** things...

But succeeding as a Python developer doesn't have to be complicated.

It can be broken down into some **simple core skills** that will lead you to your success.

These flashcards distill years of knowledge and experience into consumable chunks to get you there quickly.

Who is behind PyBites / why listen to us?

Bob Belderbos

Programmer since ‘07 specializing in automation tools and web development. Currently co-founder and coach at PyBites. Proud father of two kids, avid reader and gym goer.

Julian Sequeira

Python programmer since 2016 with a career in Enterprise technology spanning longer than he’ll admit. Co-founder, Mindset coach and Chief Dad Joke Specialist at PyBites. Proud dad to three kids, avid reader, gamer and calisthenics addict.

Together we have worked for the biggest companies on the planet, we’ve built PyBites into a successful community, training platform, and coaching business.

We’ve coached people from all over the world, one to one, helping them to launch their Python careers and products. Our platform has helped thousands more people worldwide including startups and schools.

Our unique approach of BUILDING is what makes PyBites special. We simulate real world developer problems and challenges that prepare people in record time. The key is in training people both on the tech *and* mindset skills required to succeed.

1

Code (build) every day

Make it a habit to **code every day**. No excuses.

Code every day, build every day.

Prioritise the building of a tool, script or application over any other “learning” distractions.

The building is where the **real** learning happens.

2

Write tests as you go

If there was one “aha moment” in our dev careers, it was the discovery of the power of testing.

Not only does a test suite make your code more robust and give other developers a way to verify your code and safely make changes, it also drives the design of your code.

Our framework of choice is pytest and we find joy in delivering code with good test coverage.

Again, more tests create more robust code, but it’s also a serious time saver!

https://pybit.es/articles/pytest-tips/
https://pybit.es/articles/pytest-fixtures/

3

Your debugger is your new best friend

Seriously, if there is one skill that makes you a ninja, it’s the ability to look at code, anywhere.

Starting to put breakpoints in your code enables that ability. A typical basketball match only has a finite amount of time-outs. In Python you can break anywhere.

De**bug**ging is not only about solving bugs: you can use the debugger when writing tests or anytime you want to inspect code using handy built-in functions like dir().

This is something we’d hoped we’d discovered earlier and is probably one of the biggest “aha moments” when working with our clients in our coaching program.

https://pybit.es/articles/pdb-debugger/
https://pybit.es/articles/python-help/

4

Set boundaries

You have no real control over your progress unless you set boundaries.

Not just with your work but also your relaxation and down time too.

You’re more productive when you have a finite window of opportunity.

Knowing when to stop prevents you from over indulging. This leaves you with more time to progress your goals.

PyBites Podcast #021 - Setting Realistic Expectations
https://www.pybitespodcast.com/1501156/8280744

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APIs

A lot of companies implement a microservices architecture. It basically means having a set of services talking to each other.

This is awesome, because it leads to a more decoupled design where you can have independent dev teams working on different parts of the solution. The way to interface between the different apps is via APIs.

APIs are increasingly important in the decoupling of front- and back-end. Designing your app with “API first” in mind will make it more scalable and versatile.

A great framework to learn is FastAPI: it’s high performant, easy to use (leading to concise code), it supports standards like OpenAPI, and modern Python features like *asyncio* and *typing*.

6

Learn by teaching

One of the most effective ways of learning is to teach.

Nothing helps you solidify your knowledge quite like having to impart that knowledge to others.

It’s a virtuous flywheel: you learn as you teach, then teach what you learn.

Not only will this serve to boost your skill, it will also significantly increase your confidence and help you position yourself as a subject matter expert.

7

Ship code early and often

The best thing you can do as a developer is **ship code**!

Nothing is a better test or feedback loop than code hitting the real world and having real people using it.

When we say *ship* we mean deploying your code to a cloud provider and pushing code to *PyPI*. This deployment side, as well as documentation, is often less popular among developers, but it’s critical and often the “0 to 1” of a project.

The difference between having code sitting on your computer vs helping people in the real world is immeasurable.

So beat perfectionism, ship soon and often. One of our mottos as PyBites is: *make it work first, then prettify it*.

Also, code will never be perfect, and getting feedback early will much better focus your efforts.

https://pybit.es/articles/pdb-debugger/
https://pybit.es/articles/python-help/

8

Embrace imposter syndrome

Imposter Syndrome: the feeling that you're not good enough for *x*.

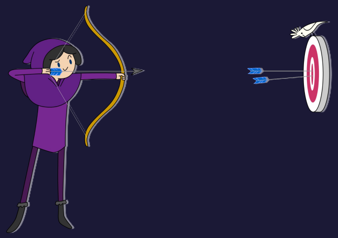
The only reason you feel it is because you're pushing yourself out of your comfort zone which == growth.

Embrace the fear, acknowledge this is all part of the journey to make you stronger and more confident, then dive straight in and show them what you're made of.

PyBites Confidence Training
https://pybit.es/confidence/

9

JIT (just in time) learning



Unfortunately *Tutorial Paralysis* is widespread in our industry.

And it will do you more harm than good.

Reading an endless stack of books or stream of video tutorials won't let you grasp the intricacies of software development.

For that, as we've said before, you need to build (real world) apps. This takes a certain *mindset* of not wanting to keep up with the neverending stack of technologies or know everything before implementing.

It requires you to work from the inside out: set a goal of what to build and then only learn the necessary things as you go (JIT or "just in time"), closely related to the feature at hand.

This practical / applied learning will save you a lot of time, reduce anxiety, and you'll grasp any technology much better.

10

git and GitHub

In whatever capacity you are going to do developer work, you need to know *git* version control and *GitHub*.

Like money being used for almost all transfers, *git* is like the currency of development. It provides the ability to maintain multiple copies of your code and share code with other developers, working in tandem.

A good understanding of this tool is absolutely essential, but like a car, you don’t have to know how every little piece works.

A proficient use of git requires you to familiarize yourself with 10-15 commands at most.

PyBites Git Tricks Training
https://www.youtube.com/watch?v=7ZQ9q7Cd9b0

Bonus

PyBites always delivers more

We’re all busy so we’ve accompanied these Flashcards with a special audio edition you can listen to on the go.

What’s next?

Deliberate practice and the guidance you need

Congrats! You made it to the end of your *PyBites Developer Flashcards*.

We encourage you to **print** and **reread** them or put the audio edition on your phone and **listen** to it once a week.

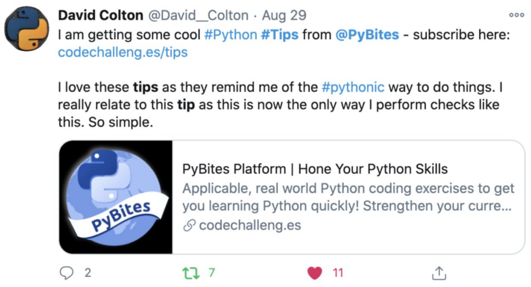
You need to have these tips front and center in order to stay focused and forge the important habits required to be an effective developer. And that’s only 50% of the journey. The other 50% is to keep coding Python and honing your dev skills **every single day**.

Our practical products are designed to get you doing just that! We’ve built a coding platform that people like you use to prepare for coding interviews.

We’ve written a Python Tips book filled with knowledge from years of writing Pythonic code. And we even have a coaching program where we build your dream app (or side gig) together with you, teaching you all the necessary dev skills in the process.

Check out our catalogue page for more detail:
https://pybit.es/catalogue/

Thank you for being part of PyBites!



David Colton @David__Colton · Aug 29

I am getting some cool #Python **#Tips** from **@PyBites** - subscribe here: codechalleng.es/tips

I love these **tips** as they remind me of the #pythonic way to do things. I really relate to this **tip** as this is now the only way I perform checks like this. So simple.

PyBites Platform | Hone Your Python Skills
Applicable, real world Python coding exercises to get you learning Python quickly! Strengthen your curre...
codechalleng.es

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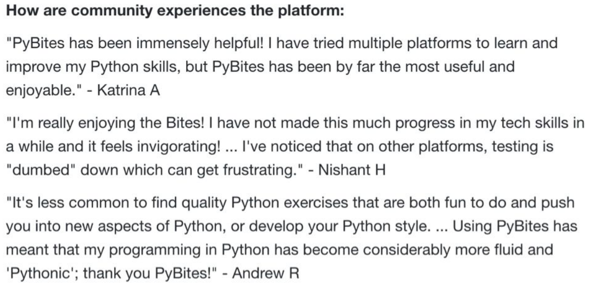
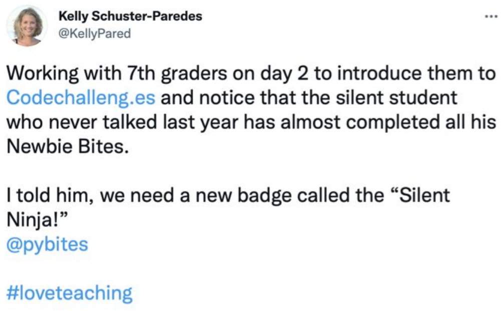


How are community experiences the platform:

"PyBites has been immensely helpful! I have tried multiple platforms to learn and improve my Python skills, but PyBites has been by far the most useful and enjoyable." - Katrina A

"I'm really enjoying the Bites! I have not made this much progress in my tech skills in a while and it feels invigorating! ... I've noticed that on other platforms, testing is "dumbed" down which can get frustrating." - Nishant H

"It's less common to find quality Python exercises that are both fun to do and push you into new aspects of Python, or develop your Python style. ... Using PyBites has meant that my programming in Python has become considerably more fluid and 'Pythonic'; thank you PyBites!" - Andrew R



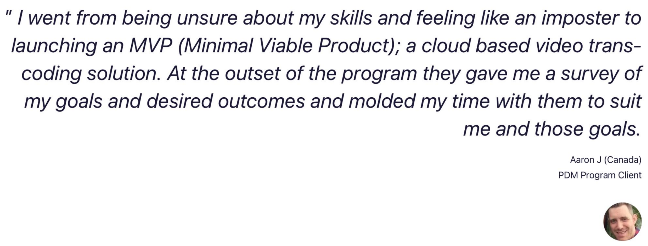
Kelly Schuster-Paredes
@KellyPared

Working with 7th graders on day 2 to introduce them to Codechalleng.es and notice that the silent student who never talked last year has almost completed all his Newbie Bites.

I told him, we need a new badge called the "Silent Ninja!"
@pybites

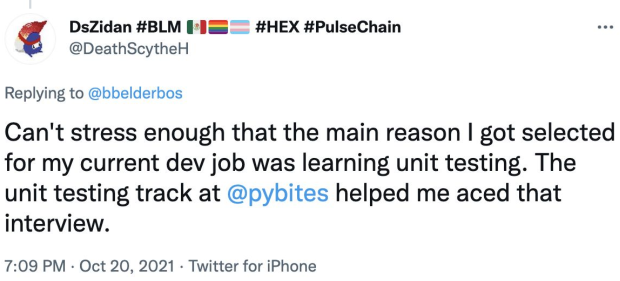
#loveteaching

Your success is ... ... our biggest win



" I went from being unsure about my skills and feeling like an imposter to launching an MVP (Minimal Viable Product); a cloud based video transcoding solution. At the outset of the program they gave me a survey of my goals and desired outcomes and molded my time with them to suit me and those goals.

Aaron J (Canada)
PDM Program Client

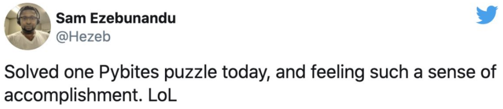


DsZidan #BLM 🇲🇽🏳️‍🌈🏳️‍⚧️ #HEX #PulseChain
@DeathScytheH

Replying to @bbelderbos

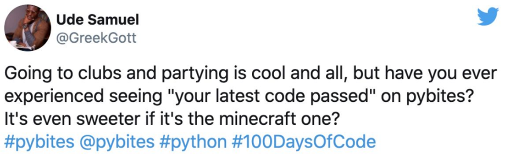
Can't stress enough that the main reason I got selected for my current dev job was learning unit testing. The unit testing track at @pybites helped me aced that interview.

7:09 PM · Oct 20, 2021 · Twitter for iPhone



Sam Ezebunandu
@Hezeb

Solved one Pybites puzzle today, and feeling such a sense of accomplishment. LoL



Ude Samuel
@GreekGott

Going to clubs and partying is cool and all, but have you ever experienced seeing "your latest code passed" on pybites? It's even sweeter if it's the minecraft one?
#pybites @pybites #python #100DaysOfCode

Print edition

PyBites is conscious of cost :)

We can’t believe how much printer ink costs these days so to save you wasting valuable ink printing these nice colourful Flashcards out, with this product we include a printer friendly version.

Get in touch …

We love to be in touch and challenge you on “What’s that next level?”

A few ways to do this:

1. Join our community: http://pybit.es/community/
2. Leave a review here: http://pybites.gumroad.com/l/pbflashcards
3. Tweet @pybites <your message> to tell us what you think of these flashcards and what action you took …
4. Send us an email: info@pybit.es